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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,467	06/20/2001	Jeffrey A. Bedell	53470.003030	9623
21967 7590 08/02/2007 HUNTON & WILLIAMS LLP INTELLECTUAL PROPERTY DEPARTMENT 1900 K STREET, N.W. SUITE 1200 WASHINGTON, DC 20006-1109			EXAMINER WASSUM, LUKE S	
			ART UNIT 2167	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/884,467

Applicant(s)

BEDELL ET AL.

Examiner

Luke S. Wassum

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. The Applicants' amendment, filed 12 June 2007, has been received, entered into the record, and considered.
2. As a result of the amendment, claims 1, 9, 10, 18, 19 and 27 have been amended, and new claims 28-30 have been added. Claims 1-30 are now pending in the application.

### *The Invention*

3. The claimed invention is a method for capturing statistical information regarding the operation of a business intelligence reporting system, and generating reports based upon the captured statistical information.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 28 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6. Newly added claim 28 cites the categorization of statistics/data into groups, and using these groups to configure how often (frequency) the statistics/data are gathered.

The claimed categorization of statistics appears to be disclosed in the specification beginning on page 16, line 20. However, the use of categorized statistics in order to configure the frequency at which statistics are gathered does not appear to be disclosed.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-8, 10-17, 19-26 and 29 are rejected under 35 U.S.C. 102(a) as being anticipated by **IBM** ("The Business Intelligence Infrastructure on S/390 Accessing DB2 on OS/390") as evidenced by **Hahn et al.** ("Capacity Planning for Business Intelligence Applications: Approaches and Methodologies") and **IBM[1]** ("OS/390 Resource Measurement Facility Report Analysis").

9. Regarding claim 1, **IBM** teaches a computer-implemented method for capturing at least one statistic or data regarding performance operation of a business intelligence reporting system that generates business intelligence reports based on requests submitted to perform analysis of data contained in a database as claimed, the process comprising the steps of:

a) gathering at least one statistic or data related to the performance operation of the reporting system while the reporting system is operating (see disclosure of the System Management Facility which measures various aspects of the work running in the system, such as measures of system resources utilized;

for instance, CPU time, storage, I/O devices, and service units, **Hahn et al.**

section 5.1.1 System Management Facility (SMF), pages 65-66 et seq.);

- b) analyzing the at least one statistic or data (see disclosure of the configuration of definitions and criteria for workflow exceptions in the Resource Measurement Facility, **IBM[1]** pages 2-251 through 2-256, whereby exception conditions are defined); and
- c) generating at least one output based on the gathered at least one statistic or data (see disclosure of the Resource Management Facility, which can generate reports summarizing key resources, including the CPU Activity Report and the Workload Activity Report, **Hahn et al.** section 5.1.2 Resource Management Facility (RMF), page 66 et seq.), wherein the at least one output includes an alert if the analysis of the at least one statistic or data indicates that a condition has occurred (see disclosure of the configuration of alerts in the Resource Measurement Facility, **IBM[1]** page 2-255, top; see also drawing Figures 2-114 and 2-115, on pages 2-252 and 2-256 respectively, showing the configuration of alerts).

10. Regarding claim 10, **IBM** teaches a system for capturing at least one statistic or data regarding performance of a business intelligence report system that generates business intelligence reports based on requests submitted to perform analysis of data contained in a database as claimed, the system comprising:

- a) gathering means for gathering at least one statistic or data related to the performance operation of the reporting system while the reporting system is operating (see disclosure of the System Management Facility which measures various aspects of the work running in the system, such as measures of system resources utilized; for instance, CPU time, storage, I/O devices, and service units, **Hahn et al.** section 5.1.1 System Management Facility (SMF), pages 65-66 et seq.);
- b) analyzing means for analyzing the at least one statistic or data (see disclosure of the configuration of definitions and criteria for workflow exceptions in the Resource Measurement Facility, **IBM[1]** pages 2-251 through 2-256, whereby exception conditions are defined); and
- c) generating means for generating at least one output based on the gathered at least one statistic or data (see disclosure of the Resource Management Facility, which can generate reports summarizing key resources, including the CPU Activity Report and the Workload Activity Report, **Hahn et al.**

section 5.1.2 Resource Management Facility (RMF), page 66 et seq.), wherein the at least one output includes an alert if the analysis of the at least one statistic or data indicates that a condition has occurred (see disclosure of the configuration of alerts in the Resource Measurement Facility, **IBM**[1] page 2-255, top; see also drawing Figures 2-114 and 2-115, on pages 2-252 and 2-256 respectively, showing the configuration of alerts).

11. Regarding claim 19, **IBM** teaches a medium storing code for causing a processor to capture at least one statistic or data regarding performance operation of a business intelligence reporting system that generates business intelligence reports based on requests submitted to perform analysis of data contained in a database as claimed, the medium comprising:

- a) code for causing a processor to gather at least one statistic or data related to the performance operation of the reporting system while the reporting system is operating (see disclosure of the System Management Facility which measures various aspects of the work running in the system, such as measures of system resources utilized; for instance, CPU time, storage, I/O



devices, and service units, **Hahn et al.** section 5.1.1 System Management Facility (SMF), pages 65-66 et seq.);

b) code for causing a processor to analyze the at least one statistic or data (see disclosure of the configuration of definitions and criteria for workflow exceptions in the Resource Measurement Facility, **IBM[1]** pages 2-251 through 2-256, whereby exception conditions are defined); and

c) code for causing a processor to generate at least one output based on the gathered at least one statistic or data (see disclosure of the Resource Management Facility, which can generate reports summarizing key resources, including the CPU Activity Report and the Workload Activity Report, **Hahn et al.** section 5.1.2 Resource Management Facility (RMF), page 66 et seq.), wherein the at least one output includes an alert if the analysis of the at least one statistic or data indicates that a condition has occurred (see disclosure of the configuration of alerts in the Resource Measurement Facility, **IBM[1]** page 2-255, top; see also drawing Figures 2-114 and 2-115, on pages 2-252 and 2-256 respectively, showing the configuration of alerts).

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12. Regarding claims 2, 11 and 20, **Hahn et al.** teaches a method, system and medium storing code further comprising the step of providing the output to an end user (see disclosure of the Resource Management Facility, which can generate reports summarizing key resources, including the CPU Activity Report and the Workload Activity Report; see section 5.1.2 Resource Management Facility (RMF), page 66 et seq.; see also disclosure of the DB2 Performance Monitor which allows a user to view recent events and a wide variety of reports for in-depth analysis; see section 5.1.3 DB2 Performance Monitor, pages 66-67 et seq.).

13. Regarding claims 3, 12 and 21, **Hahn et al.** teaches a method, system and medium storing code further comprising the step of storing the at least one gathered statistic or data in a database accessible by the reporting system for generating reports utilizing the gathered statistic or data (see disclosure that statistics are stored in SMF records, section 5.1.1 System Management Facility (SMF), pages 65-66 and section 5.1.2 Resource Management Facility (RMF), page 66).

14. Regarding claims 4, 13 and 22, **Hahn et al.** teaches a method, system and medium storing code further comprising the step of providing the output to an end user in real-time, enabling the end user to analyze the reporting system in real-time (see

disclosure of the DB2 Performance Monitor which allows a user to view recent events and a wide variety of reports for in-depth analysis; see section 5.1.3 DB2 Performance Monitor, pages 66-67 et seq.).

15. Regarding claims 5, 14 and 23, **Hahn et al.** teaches a method, system and medium storing code further comprising the step of analyzing the output, where analyzing the output comprises using at least one of a decision support technique or a decision support software (see disclosure that the information collected can be used to support capacity planning on system usage, section 5.1.1 System Management Facility (SMF), pages 65-66).

16. Regarding claims 6, 15 and 24, **Hahn et al.** teaches a method, system and medium storing code where the at least one statistic or data is related to at least one of metadata usage, server usage, concurrency data, overall system usage, individual user activity, report usage data, report definition data, standard query language data, object usage data, and database usage data (see disclosure of the System Management Facility which measures various aspects of the work running in the system, such as measures of system resources utilized; for instance, CPU time, storage, I/O devices, and service units; see section 5.1.1 System Management Facility (SMF), pages 65-66 et seq.).

17. Regarding claims 7, 16 and 25, **Hahn et al.** teaches a method, system and medium storing code further comprising the step of allocating costs of report system usage to a user of the reporting system based on the at least one output (see disclosure that recorded system- and job-related information collected can be used to bill users, section 5.1.1 System Management Facility (SMF), pages 65-66).

18. Regarding claims 8, 17 and 26, **Hahn et al.** teaches a method, system and medium storing code wherein the reporting system is an OLAP system (see disclosure that a Business Intelligence system can be 3-tiered, page 7, last paragraph; see illustration of the 3-tiered Business Intelligence system, including an OLAP server, Figure 4, page 8; see also disclosure the CPU utilization profile of an OLAP Business Intelligence system, Figure 9, page 57).

19. Regarding claim 29, **IBM[1]** additionally teaches a method wherein the at least one statistic or data is gathered to monitor processing of a cache request (see Cache Performance, beginning on page 5-10).

*Claim Rejections - 35 USC § 103*

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

22. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

23. Claims 9, 18 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over **IBM** ("The Business Intelligence Infrastructure on S/390 Accessing DB2 on OS/390") as evidenced by **Hahn et al.** ("Capacity Planning for Business Intelligence Applications: Approaches and Methodologies") and **IBM[1]** ("OS/390 Resource Measurement Facility Report Analysis") as applied to claims 1-8, 10-17, 19-26 and 29 above, and further in view of **Hayes** (U.S. Patent Application Publication 2002/0046204).

24. Regarding claims 9, 18 and 27, **IBM** teaches a method, system and medium storing code wherein usage statistics are collected and used in tuning the settings of the system in order to optimize performance (see disclosure that recorded system- and job-related information collected can be used for performance tuning, **Hahn et al.** section 5.1.2 Resource Management Facility (RMF), page 66).

**IBM** does not explicitly teach a method, system and medium storing code wherein the tuning is performed automatically.

**Hayes** teaches a method, system and medium storing code wherein system settings are automatically tuned based upon usage statistics in order to optimize performance (see paragraph [0084] et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the automatic tuning of system settings based upon usage statistics, since **Hahn et al.** discloses that the tuning of bufferpools may provide 5% to 10% reductions in processing times of a query, page 34 third paragraph, and **Hayes** discloses the automatic tuning of bufferpools, see Abstract et seq., and furthermore since historically database administrators have had to use guesswork and trial and error to identify the optimal bufferpool settings in a database, in paragraph [0001].

*Allowable Subject Matter*

25. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

26. The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a system and method for monitoring and analyzing statistics regarding informational and transactional data.

The closest prior art of record, **Hahn et al.** ("Capacity Planning for Business Intelligence Applications: Approaches and Methodologies") teaches a business intelligence application, including mechanisms for gathering statistics related to the performance of the system, and generating reports based on the performance statistics.

However, **Hahn et al.** fails to anticipate or render obvious the recited feature of generating two statistics records for requests to perform analysis which contain prompts, as in claim 30.



*Response to Arguments*

27. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 571-272-4119. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 571-273-4119. Such communications must be clearly marked as INFORMAL, DRAFT or UNOFFICIAL.

Customer Service for Tech Center 2100 can be reached during regular business hours at (571) 272-2100, or fax (571) 273-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Primary Examiner  
Art Unit 2167

lsw  
1 August 2007